User's Manual

Notice of Alterations

Models DX1002/DX1004/DX1006/DX1012/ DX1002N/DX1004N/DX1006N/DX1012N

Daqstation DX1000/DX1000N

Please note the following alterations to the IM 04L41B01-01E.

Additions and Changes to Functions 1

For products with firmware version 1.11 or later, a display language of Japanese, English, German, French, or Chinese can be selected.

Page 1-43 "Language"

The displayed language can be set to English, Japanese, German, French, or, Chinese.

Page 2-6 "Operating environment > Language"

Set the displayed language to **English**, **Japanese**, **German**, **French**, or, **Chinese**.

Page 12-4 "Other Displayed Information"

Item	Specification
Language	Select English, Japanese, German, French, or, Chinese.

Additions and Changes to Functions 2

A DC/AC 24 V power supply (/P1 option) has been added.

- **Page 3-1 "Scan interval > A/D integrate"**

Settings	Description
Auto	The DX automatically detects the power supply frequency and sets the integration time to 16.7 ms and 20 ms for 60 Hz and 50 Hz, respectively. Fixed to 20 ms on /P1 models that use the 24 VDC power supply.

- **Page 12-13**

DC/AC 24 V power supply (/P1)

Item	Specifications
Rated supply voltage	24 VDC and 24 VAC (50/60Hz)
Allowable power supply voltage range	21.6V to 26.4 VDC/AC
Insulation resistance	Between power terminal and earth: 20 MΩor greater at 500 VDC.
Withstand voltage	Between power terminal and earth: 500 VAC at 50/60 Hz for one minute
Rated power supply frequency (for AC)	50/60 Hz
Allowable power supply frequency range (for AC)	50 Hz±2%, 60 Hz±2%
Power supply fluctuation	With variation within 21.6 to 26.4 VDC/AC: ±1digit or less With variation of ±2 Hz from rated power supply frequency (at 24 VAC): ±(0.1% of rdg+1digit) or less
Rated power consumption	28 VA (for DC), 45 VA (for AC)
Power consumption	

Supply voltage	LCD backlight off	Normal	Maximum
24 VDC	8 VA	15 VA	28 VA
24 VAC (50/60Hz)	15 VA	24 VA	45 VA

Additions and Changes to Functions 3

The following additions and changes have been made to functions from firmware version 1.21.

Changes to Key Operations with the USB Keyboard

- **Page 2-15 "Mapping of the Keys on the DX to the Keys on the Keyboard"**

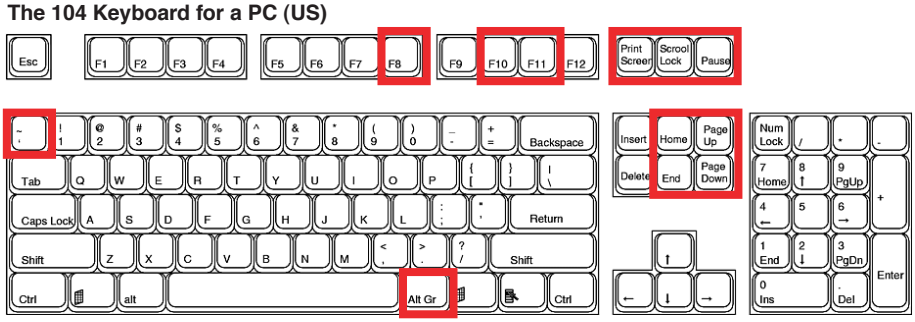
You can use the Tab key.

Keys on the Keyboard		Keys on the DX
104 Keyboard (US) for the PC	**104 Keyboard (Japanese) for the PC**	
Tab, Shift+Tab	Tab, Shift+Tab	Arrow keys*

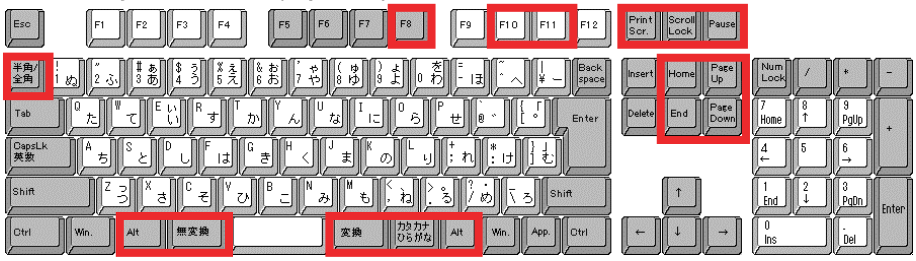
* Press Tab to move the cursor to the next item, or Shift+Tab to move to the previous item. However, this does not work in the following screens:
Operation screens, Menu screens for Setting mode and Basic setting mode, screens for entering values and characters, "Menu customize" and "Save/Load" screens in Setting mode, and "Load setting, Initialize" screen in Basic setting mode

- **Page 2-16 “Invalid Keys”**

The 104 Keyboard for a PC (US)



The 109 Keyboard for a PC(Japanese)



Addition of Operations to Request or Release Network Information

- **Page 1-33 “Key Lock Function”**

Key Lock Items	Description
Function operation	• [E-Mail start][E-Mail stop][FTP test] Operations to [Request] or [Release] network information

Additions and Changes to Error Messages

- **Pages 10-2 and 10-3**

Additions to Error Messages

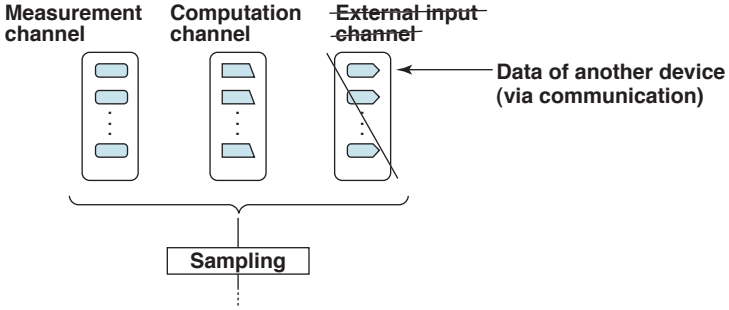
Code	Message	Explanation/Countermeasures/Ref. section
105	This port number is already in use. Please enter a different number.	Enter a different port number for each function.
221	This action is not possible because FTP transmission is in progress.	Execute after FTP data transfer is complete.

Changes to Error Messages

Code	Message	Explanation/Countermeasures/Ref. section
215	Exceeded the allowable number of directories or files.	Replacing a Storage Medium. Delete unneeded files and directories.
218	This directory or file now exists. Delete it or change the name.	See section 6.2.

Page 1-22 “Flow of Data Recording and Storage”

The external input channel function does not come with the DX1000 or DX1000N.



Page 1-41 "1.9 FAIL/Status Output Function (/F1 Option)"

Status Output

Outputs the status below with a relay contact signal (1 relay). You can .....

Status	Description
Status of the internal memory or CF card	**Error in the internal memory.** **When the auto save function to the CF card is On.** • When the remaining amount of space on the CF card falls to 10% of the total space. • ~~The CF card is not inserted.~~ • Error in the CF card. However, the status of the internal memory is output when the CF card is not inserted. • 10 MB or less of available space* remaining in internal memory. • The number of files in internal memory for which Auto Save to the CF card has not been completed has exceeded 390. **When the auto save function to the CF card is Off.** • ~~When the data that has not been saved to the CF card is greater than or equal to 90% of the internal memory size.~~ • 10 MB or less of available space* remaining in internal memory. • The number of files in internal memory for which Manual Save has not been completed has exceeded 390.

* The internal memory's "available space" refers to the following quantities.
  • Unused regions
  • Regions of data for which Auto Save or Manual Save (see page 1-26) has been completed.

Page 3-3 "3.3 Setting the Input Range"

Please exchange the screens for "Temperature Unit" and "Input Range for Each Channel."

Page 3-16 "Expression"

101	((102+P01).GE.K01)+101	Pulse sum value reset count

Page 4-5 "• Changing the Displayed Contents"

CURSOR TIME ON: Displays the time at the cursor position at the upper right.

Page 4-11

Carry out the procedure below to switch the displayed report data.

Left arrow key:	Report data being displayed + 10.
Right arrow key:	Report data being displayed – 10.

Note

The display is not updated even if a new report is created while displaying the report data. Perform either of operations below to display the most recent report data.
• Hold down the left arrow key until the latest report data is displayed.
• Press DISP/ENTER and display the report data again from the display menu.

Page 5-7 "Writing Free Messages"

Create a message on the spot and write it.

Page 9-9 "CLOG Computation ~~(Computation for Control)~~"

Only data of measurement channels and computation channels~~, and external input channels~~ can be used in the CLOG computation. .....

CLOG.SUM( )

Sum value

(Syntax)	CLOG.SUM(e1.e2.e4-e6)
(Condition)	Determines the sum value of the data of channels e1, e2, e4, e5, and e6 that are measured at the same time.

Page 9-10 “Special Computation”

HOLD(a):b

~~Minimum value~~

RESET(a):b

~~Average value~~

CARRY(a):b

~~Average value~~

Page 10-2 “A List of Messages”

Code	Message	Explanation/Countermeasures/Ref.section
65	Too many operators for MATH expression.	See section 9.2.
70	Nonexistent constant specified in MATH expression.	See section 9.2.

Page 12-4 “Other Displayed Information

Item	Specification
System information display	Displays the number of measurement and computation~~, and external input~~ channels, ...

Page 12-5 “Display Data and Event Data”

Item	Specification
Internal memory	
File storage capacity	80 MB (standard memory) or 200 MB (large memory)

Page 12-10 “Computation Function (including the report function) (/M1)”

Item	Specification
Data that can be used	
Communication input data	24

Page 12-16 “Measuring accuracy in case of scaling”

Example For 1-5 V range (A/D integration time is 16.7 ms or more), measurement span of 1.000 to 5.000 V, and scaling span of 0.000 to 2.000
The measuring accuracy for 5 V input is as follows.
Measuring accuracy (1-5 Vrange) = ±(0.05% × 5 V + 3 digits) = ±(0.0025 V [3 digits] + 3 digits) = ±6 digits
Multiplier = {2000 digits (0.000 to 2.000)}/4000 digits (1.000 to 5.000) = 0.5
Thus, accuracy during scaling = ±(6 × 0.5 + 2) digits = 5 digits (rounded up)

Pages App-1, App-3, App-4, App-5, and App-7

The DX1000/DX1000N has no external input channel function. Please disregard the references to external input channels in the above pages.